

Appendix G. Hazardous Materials Classification and Permit Amounts

The most widely used detailed classification scheme is the one that has been developed by the National Fire Protection Association, and is presented in the 1991 Uniform Fire Code, among other documents. This classification scheme is shown in Table G1. Sixty material types have been defined (HM01 to HM60). The hazards posed by the various materials are divided into two major categories: Physical Hazards and Health Hazards. Depending upon the exact nature of the hazard, these two major categories are divided into subcategories. Examples are poison, carcinogen, mildly toxic, moderately toxic or skin irritant. These subcategories of hazards, with their definitions, and examples of materials that fall within each category, are contained in Appendix 11A and 11B of the Technical Manual. A more detailed description of these categories, with more extensive examples can be found in Appendix VI-A of the 1991 Uniform Fire Code.

Table G1 also contains minimum quantities of the materials that must be on site to require permitting according to the Uniform Fire Code. It should be noted that the minimum permit quantities may vary depending upon whether the chemical is stored inside or outside of a building. For facilities that have hazardous materials, but in quantities less than those listed in Table G1, it is anticipated that releases of these small quantities will not put significant immediate demands on health and emergency services, thus you may wish to exclude them from the database.

Table G1 Classification of Hazardous Materials and Permit Amounts

Label	Material Type	Permit Amount		Hazard Type Remarks
		Inside Building	Outside Building	
HM01	Carcinogens	10 lbs	10 lbs	Health
HM02	Cellulose nitrate	25 lbs	25 lbs	Physical
HM03	Combustible fibers	100 cubic ft	100 cubic ft	Physical
HM04	Combustible liquids Class I	5 gallons	10 gallons	Physical
HM05	Class II	25 gallons	60 gallons	
HM06	Class III-A	25 gallons	60 gallons	
HM07	Corrosive gases	Any amount	Any amount	Health [1]
HM08	Corrosive liquids	55 gallons	55 gallons	Physical; Health
HM09	Cryogenics Corrosive	1 gallon	1 gallon	Health
HM10	Flammable	1 gallon	60 gallons	Physical
HM11	Highly toxic	1 gallon	1 gallon	Health
HM12	Nonflammable	60 gallons	500 gallons	Physical
HM13	Oxidizer (including oxygen)	50 gallons	50 gallons	Physical
HM14	Highly toxic gases	Any amount	Any amount	Health; [1]
HM15	Highly toxic liquids & solids	Any amount	Any amount	Health
HM16	Inert	6,000 cubic ft	6,000 cubic ft	Physical; [1]
HM17	Irritant liquids	55 gallons	55 gallons	Health
HM18	Irritant solids	500 lbs	500 lbs	Health
HM19	Liquefied petroleum gases	> 125 gallons	> 125 gallons	Physical
HM20	Magnesium	10 lbs	10 lbs	Physical
HM21	Nitrate film	(Unclear)	(Unclear)	Health
HM22	Oxidizing gases (including oxygen)	500 cubic feet	500 cubic feet	Physical [1]
HM23	Oxidizing liquids Class 4	Any amount	Any amount	Physical
HM24	Class 3	1 gallon	1 gallon	
HM25	Class 2	10 gallons	10 gallons	
HM26	Class 1	55 gallons	55 gallons	
HM27	Oxidizing solids Class 4	Any amount	Any amount	Physical
HM28	Class 3	10 lbs	10 lbs	
HM29	Class 2	100 lbs	100 lbs	
HM30	Class 1	500 lbs	500 lbs	
HM31	Organic peroxide liquids and solids Class I	Any amount	Any amount	Physical
HM32	Class II	Any amount	Any amount	
HM33	Class III	10 lbs	10 lbs	
HM34	Class IV	20 lbs	20 lbs	
HM35	Other health hazards Liquids	55 gallons	55 gallons	Health
HM36	Solids	500 lbs	500 lbs	
HM37	Pyrophoric gases	Any amount	Any amount	Physical [1]
HM38	Pyrophoric liquids	Any amount	Any amount	Physical
HM39	Pyrophoric solids	Any amount	Any amount	Physical
HM40	Radioactive materials	1 m Curie in unsealed source	1 m Curie in sealed source	Health [1]
HM41	Sensitizer, liquids	55 gallons	55 gallons	Health
HM42	Sensitizer, solids	500 lbs	500 lbs	Health
HM43	Toxic gases	Any amount	Any amount	Health [1]

Table G1 Classification of Hazardous Materials and Permit Amounts (Cont.)

Label	Material Type	Permit Amount		Hazard Type Remarks
		Inside Building	Outside Building	
HM44	Toxic liquids	50 gallons	50 gallons	Health
HM45	Toxic solids	500 lbs	500 lbs	Health
HM46	Unstable gases (reactive)	Any amount	Any amount	Physical ¹³
HM47	Unstable liquids (reactive) Class 4 Class 3 Class 2 Class 1	Any amount	Any amount	Physical
HM48		Any amount	Any amount	
HM49		5 gallons	5 gallons	
HM50		10 gallons	10 gallons	
HM51	Unstable solids (reactive) Class 4 Class 3 Class 2 Class 1	Any amount	Any amount	Physical
HM52		Any amount	Any amount	
HM53		50 lbs	50 lbs	
HM54		100 lbs	100 lbs	
HM55	Water-reactive liquids Class 3 Class 2 Class 1	Any amount	Any amount	Physical
HM56		5 gallons	5 gallons	
HM57		10 gallons	10 gallons	
HM58	Water-reactive solids Class 3 Class 2 Class 1	Any amount	Any amount	Physical
HM59		50 pounds	50 pounds	
HM60		100 pounds	100 pounds	

¹³ Includes compressed gases

